Fiscal Research Program

LOCAL GOVERNMENT FISCAL LIABILITY

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I. Introduction

This report presents an analysis of local government fiscal viability in Georgia. The report presents three indices -- a fiscal capacity index, an expenditure need index, and a fiscal viability measure -- for each county in Georgia, and the fiscal capacity index for selected cities in Georgia. The following three sections contain a discussion of each of the three indices. The Section V contains a description of how the indices were constructed.

II. Analysis of the Fiscal Capacity Index

An index of fiscal capacity measures the relative ability of jurisdictions to raise revenue. In particular, the index of fiscal capacity represents the revenue per capita that would be raised by a given revenue structure (i.e., all jurisdictions use the same taxes and same rates) expressed as a percent of the state average revenue per capita. We constructed such an index for each county in Georgia and for selected cities, where the revenue sources in the index include property tax, sales tax, business licenses (now called the occupational tax), charges (user fees), and miscellaneous tax and charges. Section V contains a full discussion of how the index was constructed.

Table 1 presents the fiscal capacity index with the counties listed alphabetically, while Table 2 lists the counties ranked by the value of the index. To illustrate, the fiscal capacity index of 135 for Appling county means that for the given revenue structure and rates, the revenue per capita that would be raised in Appling County is 35 percent more than the state average revenue. Likewise, the index value of 64 for Atkinson county means that the per capita revenue that would be raised in that county would be 64 percent of the state average, or 36 percent less than the state average. A county with an index of 50, for example, would have to impose tax rates that are

Table 1
Fiscal Capacity Index
1994

County	Fiscal Capacity Index	County	Fiscal Capacity Index	County	Fiscal Capacity Index	County	Fiscal Capacity Index
Appling	135	Dawson	97	Johnson	53	Screven	69
Atkinson	64	Decatur	83	Jones	71	Seminole	71
Bacon	66	DeKalb	113	Lamar	66	Spalding	74
Baker	92	Dodge	58	Lanier	58	Stephens	80
Baldwin	72	Dooly	74	Laurens	87	Stewart	62
Banks	108	Dougherty	84	Lee	61	Sumter	70
Barrow	78	Douglas	87	Liberty	45	Talbot	54
Bartow	108	Early	92	Lincoln	64	Taliaferro	77
Ben Hill	72	Echols	93	Long	50	Tattnall	58
Berrien	69	Effingham	69	Lowndes	85	Taylor	66
Bibb	97	Elbert	72	Lumpkin	83	Telfair	70
Bleckley	64	Emanuel	63	Macon	81	Terrell	63
Brantley	54	Evans	69	Madison	62	Thomas	82
Brooks	58	Fannin	77	Marion	64	Tift	82
Bryan	70	Fayette	111	McDuffie	72	Toombs	74
Bulloch	75	Floyd	102	McIntosh	70	Towns	98
Burke	250	Forsyth	128	Meriwether	55	Treutlen	51
Butts	75	Franklin	90	Miller	74	Troup	87
Calhoun	75	Fulton	157	Mitchell	69	Turner	74
Camden	68	Gilmer	94	Monroe	169	Twiggs	75
Candler	70	Glascock	88	Montgomery	55	Union	86
Carroll	76	Glynn	117	Morgan	97	Upson	72
Catoosa	75	Gordon	96	Murray	74	Walker	61
Charlton	66	Grady	66	Muscogee	83	Walton	82
Chatham	105	Greene	95	Newton	82	Ware	72
Chattahoochee	31	Gwinnett	118	Oconee	86	Warren	65
Chattooga	70	Habersham	91	Oglethorpe	67	Washington	95
Cherokee	92	Hall	108	Paulding	68	Wayne	80
Clarke	92	Hancock	66	Peach	68	Webster	79
Clay	62	Haralson	67	Pickens	92	Wheeler	58
Clayton	105	Harris	90	Pierce	63	White	114
Clinch	78	Hart	91	Pike	69	Whitfield	116
Cobb	121	Heard	109	Polk	63	Wilcox	65
Coffee	80	Henry	95	Pulaski	76	Wilkes	85
Colquitt	70	Houston	75	Putnam	117	Wilkinson	94
Columbia	87	Irwin	65	Quitman	64	Worth	62
Cook	66	Jackson	80	Rabun	152		
Coweta	98	Jasper	84	Randolph	63		
Crawford	55	Jeff Davis	79	Richmond	89		
Crisp	77	Jefferson	66	Rockdale	101		
Dade	62	Jenkins	59	Schley	65		

Table 2
Fiscal Capacity Index
1994

Ranking	County	Fiscal Capacity Index	Ranking	County	Fiscal Capacity Index	Ranking	County	Fiscal Capacity Index	Ranking	County	Fiscal Capacity Index
1	Chattahoochee	31	41	Hancock	66	81	Houston	75	121	Early	92
2	Liberty	45	42	Bacon	66	82	Pulaski	76	122	Clarke	92
3	Long	50	43	Grady	66	83	Carroll	76	123	Baker	92
4	Treutlen	51	44	Lamar	66	84	Taliaferro	77	124	Echols	93
5	Johnson	53	45	Oglethorpe	67	85	Fannin	77	125	Wilkinson	94
6	Brantley	54	46	Haralson	67	86	Crisp	77	126	Gilmer	94
7	Talbot	54	47	Madison	68	87	Barrow	78	127	Washington	95
8	Montgomery	55	48	Camden	68	88	Clinch	78	128	Henry	95
9	Crawford	55	49	Paulding	68	89	Jeff Davis	79	129	Greene	95
10	Meriweather	55	50	Peach	68	90	Webster	79	130	Gordon	96
11	Wheeler	58	51	Effingham	69	91	Jackson	80	131	Morgan	97
12	Dodge	58	52	Screven	69	92	Coffee	80	132	Marion	97
13	Brooks	58	53	Pike	69	93	Stephens	80	133	Bibb	97
14	Tattnall	58	54	Evans	69	94	Wayne	80	134	Dawson	97
15	Lanier	58	55	Mitchell	69	95	Macon	81	135	Coweta	98
16	Jenkins	59	56	Berrien	69	96	Newton	82	136	Towns	98
17	Lee	61	57	Telfair	70	97	Walton	82	137	Rockdale	101
18	Walker	61	58	Colquitt	70	98	Tift	82	138	Floyd	102
19	Worth	62	59	Bryan	70	99	Thomas	82	139	Clayton	105
20	Stewart	62	60	Candler	70	100	Lumpkin	83	140	Chatham	105
21	McDuffie	62	61	Sumter	70	101	Decatur	83	141	Hall	108
22	Clay	62	62	Chatooga	70	102	Muscogee	83	142	Banks	108
23	Dade	62	63	Seminole	71	103	Dougherty	84	143	Bartow	108
24	Terrell	63	64	Jones	71	104	Jasper	84	144	Heard	109
25	Randolph	63	65	Ware	72	105	Wilkes	85	145	Fayette	111
26	Emanuel	63	66	Upson	72	106	Lowndes	85	146	McIntosh	112
27	Polk	63	67	Ben Hill	72	107	Union	86	147	DeKalb	113
28	Pierce	63	68	Elbert	72	108	Oconee	86	148	White	114
29	Quitman	64	69	Baldwin	72	109	Columbia	87	149	Whitfield	116
30	Bleckley	64	70	Murray	74	110	Laurens	87	150	Glynn	117
31	Lincoln	64	71	Miller	74	111	Troup	87	151	Putnam	117
32	Atkinson	64	72	Toombs	74	112	Douglas	87	152	Gwinnett	118
33	Wilcox	65	73	Turner	74	113	Glascock	88	153	Cobb	121
34	Warren	65	74	Spalding	74	114	Richmond	89	154	Forsyth	128
35	Irwin	65	75	Dooly	74	115	Franklin	90	155	Appling	135
36	Schley	65	76	Calhoun	75	116	Harris	90	156	Rabun	152
37	Jefferson	66	77	Catoosa	75	117	Hart	91	157	Fulton	157
38	Taylor	66	78	Bulloch	75	118	Habersham	91	158	Monroe	169
39	Charlton	66	79	Butts	75	119	Cherokee	92	159	Burke	250
40	Cook	66	80	Twiggs	75	120	Pickens	92			

twice as high as a county with an ability to raise revenue equal to the state average in order to generate revenue per capita equal to the state average. The index is not related to the revenue that counties actually collect, since that is dependent upon the county's choice of revenue sources and rates.

The wide variation in the index, the index ranges from 31 to 250, implies that there is substantial variation in fiscal capacity across Georgia. Excluding the highest and lowest five counties, the index still ranges from 53 to 128. Only 23 counties have an index value greater than 100.[1] The geographic distribution of the index is seen in the map.

The value of the index for any county is related to the magnitude of the bases for each of the individual revenue sources. To see this relationship we broke out the fiscal capacity index into separate indices for property tax, sales tax, and other revenue. These are shown in Table 3. Each of these indices shows the per capita revenue that would be generated from the tax relative to the average for the state.[2] These indices allow us to identify whether a specific tax is responsible for a large or small fiscal capacity index. There are several points to be made. First, in general the property tax index is more highly correlated with the fiscal capacity index than are the other two indices. This is due to the relatively greater importance of the property tax in the fiscal capacity index. Second, while many counties have similar values for each of the three revenue sources,

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[1] The reason why so few counties have an index greater than 100 is that counties with above average revenue per capita have large populations, thus "pulling up" the state wide average that is used as the denominator in constructing the index. We could have used the average of county per capita revenue as the denominator. That would change the value of the index for each county but would not change the ranking.

[2]Since we are using same tax rates for all counties, we would get the same value of the tax specific indices if we used tax base per capita.

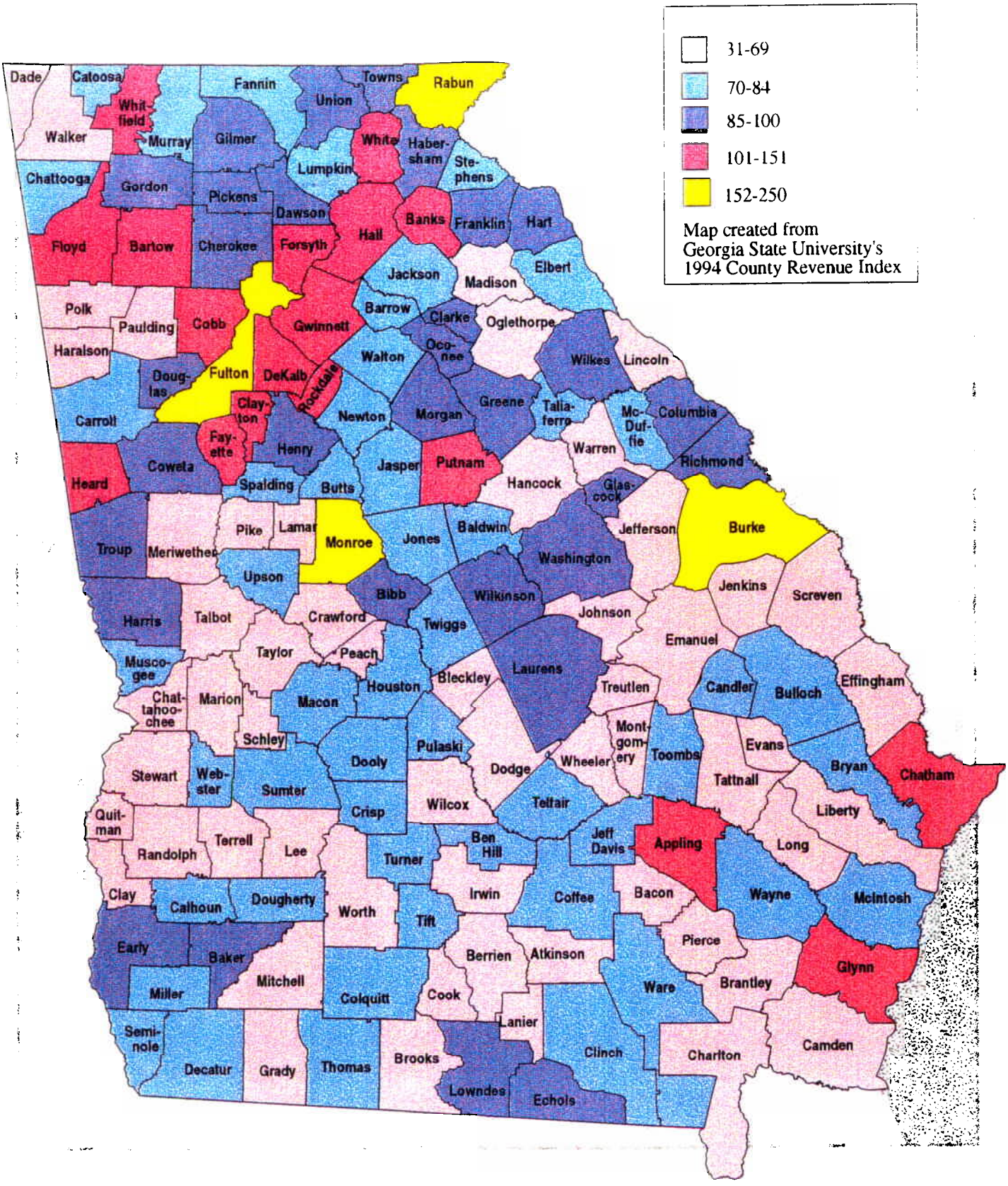
Table 3

Fiscal Capacity by Tax Type

1994

County	Property Tax Index	Sales Tax Index	Other Revenue Index
Georgia	100	100	100
Appling	198	99	69
Atkinson	62	54	74
Bacon	64	64	70
Baker	128	40	73
Baldwin	58	78	89
Banks	118	125	81
Barrow	76	78	81
Bartow	121	118	84
Ben Hill	60	86	80
Berrien	69	62	75
Bibb	85	121	101
Bleckley	54	58	81
Brantley	56	34	65
Brooks	59	36	69
Bryan	74	57	73
Bulloch	72	89	70
Burke	458	61	68
Butts	73	76	77
Calhoun	86	42	77
Camden	67	75	63
Candler	60	76	81
Carroll	71	82	81
Catoosa	71	87	73
Charlton	75	54	60
Chatham	101	118	103
Chattahoochee	9	9	77
Chatooga	68	67	76
Cherokee	98	71	95
Clarke	83	116	90
Clay	72	41	62
Clayton	117	101	90
Clinch	87	66	71
Cobb	117	123	124
Coffee	74	89	83
Colquitt	64	68	80
Columbia	95	63	90
Cook	60	74	69
Coweta	106	91	91
Crawford	60	25	66
Crisp	67	97	81
Dade	56	71	66
Dawson	123	56	85
Decatur	85	84	80
DeKalb	108	111	120
Dodge	50	56	70
Dooly	77	65	75
Dougherty	70	110	86
Douglas	85	91	89
Early	107	87	73
Echols	142	30	63
Effingham	74	44	76
Elbert	72	64	75
Emanuel	62	57	86
Evans	59	77	89
Fannin	84	76	73
Fayette	116	84	63
Floyd	105	108	76
Forsyth	149	107	79
Franklin	89	90	67
Fulton	157	159	78
Gilmer	108	87	68
Glascock	101	70	119
Glynn	121	130	94
Gordon	97	107	110
Grady	66	64	90
Greene	119	69	156
Gwinnett	117	122	80
Habersham	94	90	81
Hall	113	108	103
Hancock	82	29	87
Haralson	66	53	69
Harris	106	56	76
Hart	109	64	116
Heard	131	135	89
Henry	101	89	99
Houston	65	81	66
Irwin	72	39	79
Jackson	79	76	90
Jasper	100	51	81
Jeff Davis	73	95	62
Jefferson	66	52	89
Jenkins	60	41	86
Johnson	50	37	72
Jones	72	43	82
Lamar	67	53	81
Lanier	51	51	73
Laurens	84	101	83
Lee	68	25	74
Liberty	37	46	55
Lincoln	66	39	74
Long	57	28	53
Lowndes	78	107	83
Lumpkin	94	57	82
McDuffie	64	74	82
McIntosh	81	55	61
Macon	89	72	74
Madison	61	38	79
Marion	66	47	70
Meriweather	53	46	64
Miller	81	52	77
Mitchell	72	56	74
Monroe	241	148	79
Montgomer	54	33	69
Morgan	107	89	87
Murray	77	63	74
Muscogee	71	100	90
Newton	86	75	80
Oconee	93	46	100
Oglethorpe	76	31	77
Paulding	71	53	73
Peach	59	62	85
Pickens	99	79	89
Pierce	62	48	75
Pike	76	37	79
Polk	57	58	74
Pulaski	71	65	91
Putnam	147	104	82
Quitman	67	43	71
Rabun	227	98	78
Randolph	63	52	69
Richmond	78	105	96
Rockdale	102	98	100
Schley	67	45	75
Screven	70	55	76
Seminole	73	62	72
Spalding	65	82	82
Stephens	78	82	82
Stewart	70	34	67
Sumter	60	76	81
Talbot	62	29	59
Taliaferro	99	27	76
Tattnall	53	46	74
Taylor	66	49	76
Telfair	68	66	74
Terrell	62	52	70
Thomas	77	81	91
Tift	73	105	82
Toombs	65	84	80
Towns	128	72	70
Treutlen	47	37	66
Troup	85	90	89
Turner	77	62	77
Twiggs	93	54	63
Union	104	65	72
Upson	67	75	76
Walker	56	48	77
Walton	89	60	85
Ware	59	93	77
Warren	72	45	68
Washington	99	95	89
Wayne	86	75	76
Webster	93	49	77
Wheeler	58	35	70
White	135	99	94
Whitfield	113	144	103
Wilcox	70	36	75
Wilkes	86	80	87
Wilkinson	106	94	77
Worth	64	42	71

Fiscal Capacity Index



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there are many counties for which one of the indices is either much higher or lower than the other two indices. There are 87 counties for which one of the three individual tax indices is more than 20 percent larger or smaller than its fiscal capacity index. Third, there are three counties with very large values for the property tax index, i.e., Burke, Monroe, and Rabun, and one county, Chattachoochee, with a very low value. (A large portion of Chattachoochee County is occupied by the U.S. Department of Defense.) Fourth, there is much less variation in the value of the other revenue index than in the property tax index and the sales tax index.

We have tried to explore reasons for the variations in the fiscal capacity index beyond the obvious relationship between the values of the fiscal capacity index and the revenue bases. The value of the index is positively related to per capita income; the simple correlation coefficient between the index and per capita income is 0.47. It is also related to the population of the county; the simple correlation coefficient between the index and population is 0.37.

Large values of the fiscal capacity index are associated with smaller counties in which significant power plants are located and with counties that are in urban areas or have large cities. The counties with the highest and fifth highest fiscal capacity index, i.e., Burke and Appling, are home to Plant Vogel and Plant Hatch, respectively. The counties with the second and fourth highest fiscal capacity, Monroe and Rabun, have electrical power generation facilities, as do Heard, Putnam, and Floyd.[3] Not unexpectedly, these counties, with the exception of Floyd, have very high value of the property tax index. However, not all counties with power plants have a high fiscal capacity index. Other counties with high values of the index include many of the urban

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[3]Other counties with electrical power generation facilities are: Bartow, Bibb, Butts, Baldwin, Carroll, Cobb, Coweta, Dougherty, Glynn, Hancock, Harris, Muscogee, and Stephens.

counties since they tend to have greater sales per capita, higher assessed property per capita, and higher per capita incomes. Twelve of the 16 counties without power plants but with a fiscal capacity index greater than 100 are in metropolitan areas or have a large city. However, being in a metropolitan area or having a large city does not necessarily yield a high fiscal capacity index. While a greater percent of the counties in the southern part of the state have low values of the index, both low and high values are found throughout the state.

We were able to calculate the value of the fiscal capacity index for 41 cities for which sufficient data were available to construct a fiscal capacity index; data limitations prevented us from constructing one for all cities. Table 4 presents the values of the index for these cities, as well as for the counties in which they are located. In general, the value of the index for the city is similar to the value for the county, but there are exceptions. For 28 of the 41 cities the index for the city is greater than the index for the county. The cities included are not representative of Georgia cities in general since the cities listed in Table 4 are larger and are more likely to be in urbanized counties. Note that the values of the index for the counties are generally larger than those found in Table 1 and that there is less variability.

III. Expenditure Need Index

An index of expenditure need measures the expenditures per capita that a jurisdiction must make in order to provide a given set of public services, expressed relative to the state average. Differences between jurisdictions in needed expenditures result, in part, from differences in costs and service environment. Because of differences across the state in the wages that industry pays, there will be differences in the wages that local governments will have to pay to hire employees.

TABLE 4

FISCAL CAPACITY INDEX FOR SELECTED CITIES

COUNTY	FISCAL CAPACITY	CITY	FISCAL CAPACITY
Baldwin	72	Milledgeville	64
Bartow	108	Cartersville	163
Bibb	97	Macon	89
Bulloch	75	Statesboro	77
Candler	70	Metter	74
Carroll	76	Carrollton	98
Chatham	105	Savannah	83
Cherokee	92	Woodstock	125
Clayton	105	Riverdale	98
Cobb	121	Marietta	137
		Smyrna	126
Colquitt	70	Moultrie	67
Coweta	98	Newnan	105
DeKalb	113	Chamblee	136
		Decatur	107
		Doraville	136
Dougherty	84	Albany	81
Douglas	87	Douglasville	115
Fayette	111	Fayetteville	134
Floyd	102	Rome	104
Fulton	157	Alpharetta	222
		Atlanta	141
		East Point	103
		Roswell	181
Glynn	117	Brunswick	86
Gwinnett	118	Duluth	159
		Lawrenceville	114
		Lilburn	120
		Norcross	170
		Snellville	122
Hall	108	Gainesville	152
Houston	75	Warner Robins	75
Lowndes	85	Valdosta	94
Richmond	89	Augusta	83
Rockdale	101	Conyers	137
Spalding	74	Griffin	82
Thomas	82	Thomasville	91
Tift	82	Tifton	81
Troup	87	LaGrange	102
Ware	72	Waycross	73
Whitfield	116	Dalton	165

This will lead to differences in the level of expenditures necessary to provide a given level of public service. Differences in needed expenditures also result from differences in the service environment. For example, in order to provide fire services of a given quality, expenditures will have to reflect differences in density of housing, its age, and the amount of commercial and industrial property. Differences in expenditures also are the result of differences in wealth and tastes or preferences. The measure of expenditure need should capture differences in expenditures due to differences in costs and service environment but not differences due to differences in wealth and tastes. Once per capita expenditure need is calculated for each jurisdiction the value is divided by per capita state wide expenditure need. Section V discusses how the index was constructed.

As with the fiscal capacity index, expenditures needed are not directly related to actual expenditures that a jurisdiction makes. Instead, the expenditure need should reflect the level of expenditures required to provide a given set of public services at a given level of quality. The index we have constructed is based on municipal-type services and does not include education or certain services that are usually provided only by county governments. An expenditure need index was calculated for each county in Georgia; note that the assumption underlying the construction of the index is that the services are provided uniformly throughout the county. Data limitations prevented us from estimating an expenditure need index for any of the cities.

The construction of an expenditure need index is much more difficult than the construction of a fiscal capacity index because there is no agreement as to what constitutes a difference in need and no good measures of the relationship between the level of need and the expenditures that are required. While the basic approach we have used is sound, and based on previous research, one

should not take the specific values reported too literally.[4]

Table 5 presents the expenditure need index with the counties listed alphabetically, while Table 6 lists the counties ranked by the value of the index. The interpretation of the expenditure need index is equivalent to that for the fiscal capacity index. The value of 99 for Appling County implies that it would need to spend only 99 percent of the state average to provide the given set of public services. The value of 106 for Atkinson County implies that it would have to spend 106 percent of the state average to provide the given set of public services.

The range of values of the index, from 72 to 155, is much smaller than for the fiscal capacity index. For example, 113 counties have values of the index in the range of 90 to 110. The geographic distribution of the index is seen in the map.

Differences in the values of the index across counties will be related to difference in wages and the factors that measure service environment (see the Appendix for a list of the variables that measure the service environment). Many of these factors are associated with more urbanized areas, and thus counties with higher values of the expenditure need index are generally counties in urban areas.

The fiscal capacity index and expenditure need index are positively correlated. However, the relationship is weak. The simple correlation coefficient is only 0.19. This means that in Georgia there is little correlation between fiscal capacity and expenditure need.

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[4]For a discussion of the expenditure need index, see Robert W. Rafuse, Jr., *Representative Expenditures: Addressing the Neglected Dimension of Fiscal Capacity*, Washington, D.C.: Advisory Commission on Intergovernmental Relations, December, 1990 and Helen F. Ladd and John Yinger, *America's Ailing Cities: Fiscal Health and the Design of Urban Policy*, Baltimore: The Johns Hopkins University Press, 1989.

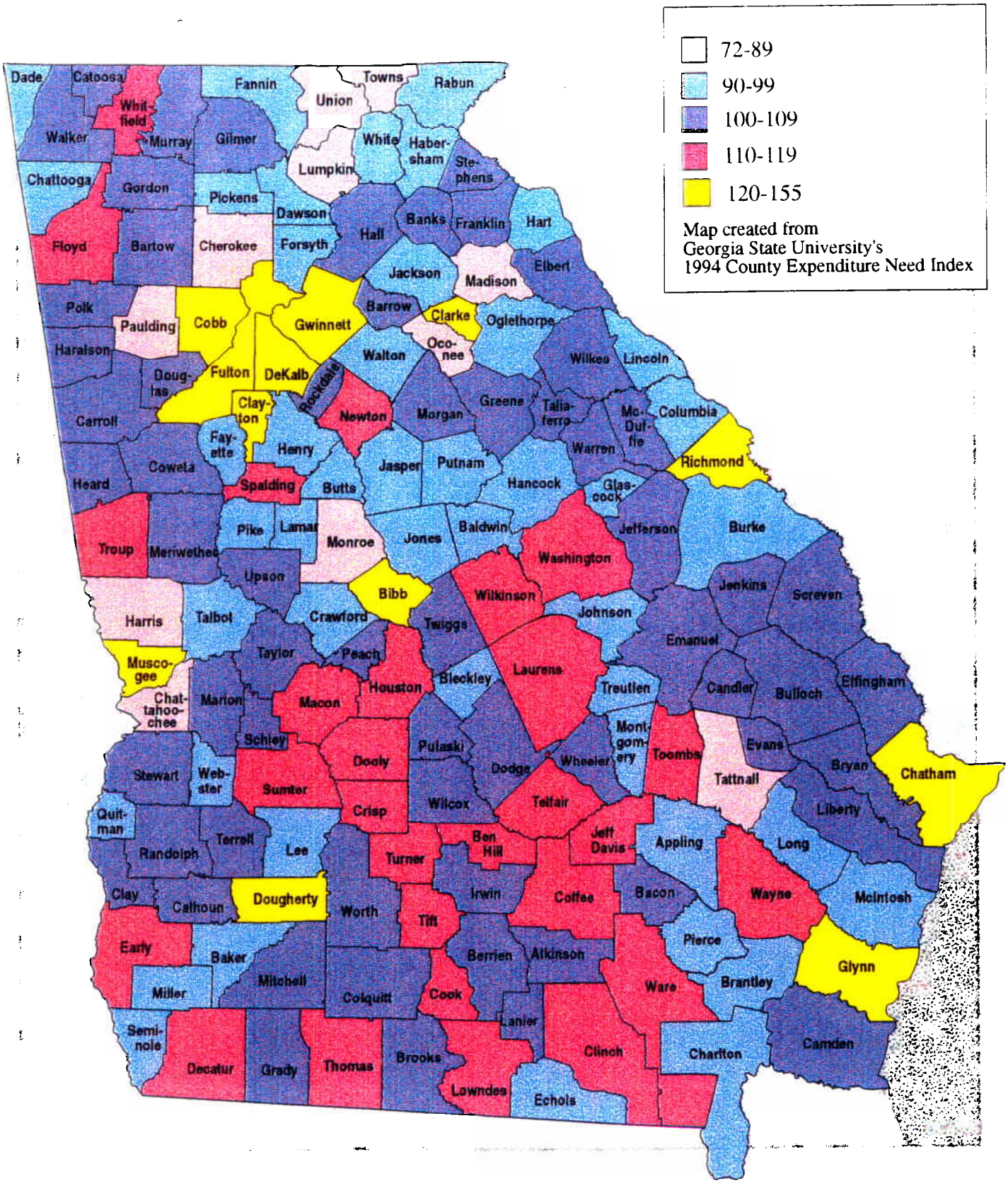
Table 5
Expenditure Need Index
1994

County	Expenditure Need Index
Appling	99
Atkinson	106
Bacon	104
Baker	99
Baldwin	90
Banks	101
Barrow	102
Bartow	102
Ben Hill	117
Berrien	109
Bibb	131
Bleckley	97
Brantley	98
Brooks	101
Bryan	100
Bulloch	109
Burke	98
Butts	91
Calhoun	103
Camden	106
Candler	100
Carroll	107
Catoosa	100
Charlton	95
Chatham	127
Chattahoochee	99
Chattooga	72
Cherokee	86
Clarke	125
Clay	106
Clayton	128
Clinch	110
Cobb	124
Coffee	118
Colquitt	109
Columbia	95
Cook	112
Coweta	102
Crawford	91
Crisp	111
Dade	92
Dawson	91
Decatur	116
DeKalb	123
Dodge	103
Dooly	111
Dougherty	131
Douglas	102
Early	114
Echols	93
Effingham	106
Elbert	109
Emanuel	107
Evans	102
Fannin	94
Fayette	90
Floyd	111
Forsyth	99
Franklin	102
Fulton	155
Gilmer	100
Glascock	94
Glynn	121
Gordon	105
Grady	105
Greene	100
Gwinnett	120
Habersham	95
Hall	107
Hancock	93
Haralson	100
Harris	89
Hart	93
Heard	100
Henry	93
Houston	113
Irwin	106
Jackson	99
Jasper	97
Jeff Davis	115
Jefferson	104
Jenkins	104
Johnson	92
Jones	90
Lamar	99
Lanier	104
Laurens	116
Lee	90
Liberty	102
Lincoln	94
Long	96
Lowndes	119
Lumpkin	88
Macon	112
Madison	89
Marion	104
McDuffie	102
McIntosh	96
Meriwether	101
Miller	93
Mitchell	108
Monroe	89
Montgomery	94
Morgan	101
Murray	101
Muscogee	124
Newton	110
Oconee	88
Oglethorpe	92
Paulding	88
Peach	106
Pickens	92
Pierce	99
Pike	92
Polk	102
Pulaski	108
Putnam	91
Quitman	98
Rabun	93
Randolph	102
Richmond	123
Rockdale	103
Schley	100
Screven	105
Seminole	98
Spalding	114
Stephens	102
Stewart	102
Sumter	110
Talbot	98
Taliaferro	102
Tattnall	89
Taylor	105
Telfair	118
Terrell	107
Thomas	113
Tift	118
Toombs	110
Towns	84
Treutlen	99
Troup	116
Turner	115
Twiggs	101
Union	89
Upson	105
Walker	100
Walton	95
Ware	111
Warren	100
Washington	113
Wayne	115
Webster	98
Wheeler	100
White	99
Whitfield	110
Wilcox	102
Wilkes	104
Wilkinson	111
Worth	101

Table 6
Expenditure Need Index
1994

Ranking	County	Expenditure Need Index	Ranking	County	Expenditure Need Index	Ranking	County	Expenditure Need Index	Ranking	County	Expenditure Need Index
1	Chattahoochee	72	41	Jasper	97	81	Polk	102	121	Newton	110
2	Towns	84	42	Bleckley	97	82	Liberty	102	122	Toombs	110
3	Cherokee	86	43	Webster	98	83	McDuffie	102	123	Sumter	110
4	Lumpkin	88	44	Brantley	98	84	Wilcox	102	124	Whitfield	110
5	Oconee	88	45	Seminole	98	85	Coweta	102	125	Crisp	111
6	Paulding	88	46	Quitman	98	86	Stephens	102	126	Dooly	111
7	Tattnall	89	47	Talbot	98	87	Taliaferro	102	127	Floyd	111
8	Harris	89	48	Burke	98	88	Evans	102	128	Wilkinson	111
9	Monroe	89	49	Chatooga	99	89	Barrow	102	129	Ware	111
10	Union	89	50	White	99	90	Dodge	103	130	Cook	112
11	Madison	89	51	Lamar	99	91	Calhoun	103	131	Macon	112
12	Baldwin	90	52	Treutlen	99	92	Rockdale	103	132	Thomas	113
13	Fayette	90	53	Jackson	99	93	Marion	104	133	Houston	113
14	Lee	90	54	Pierce	99	94	Jenkins	104	134	Washington	113
15	Jones	90	55	Forsyth	99	95	Jefferson	104	135	Early	114
16	Butts	91	56	Appling	99	96	Wilkes	104	136	Spalding	114
17	Putnam	91	57	Baker	99	97	Lanier	104	137	Turner	115
18	Crawford	91	58	Schley	100	98	Bacon	104	138	Wayne	115
19	Dawson	91	59	Wheeler	100	99	Taylor	105	139	Jeff Davis	115
20	Pike	92	60	Haralson	100	100	Gordon	105	140	Troup	116
21	Oglethorpe	92	61	Walker	100	101	Upson	105	141	Decatur	116
22	Johnson	92	62	Candler	100	102	Grady	105	142	Laurens	116
23	Pickens	92	63	Gilmer	100	103	Screven	105	143	Ben Hill	117
24	Dade	92	64	Heard	100	104	Peach	106	144	Tift	118
25	Rabun	93	65	Catoosa	100	105	Camden	106	145	Telfair	118
26	Miller	93	66	Greene	100	106	Clay	106	146	Coffee	118
27	Hart	93	67	Warren	100	107	Effingham	106	147	Lowndes	119
28	Echols	93	68	Bryan	100	108	Atkinson	106	148	Gwinnett	120
29	Henry	93	69	Twiggs	101	109	Irwin	106	149	Glynn	121
30	Hancock	93	70	Morgan	101	110	Emanuel	107	150	Dekalb	123
31	Glascock	94	71	Banks	101	111	Terrell	107	151	Richmond	123
32	Fannin	94	72	Worth	101	112	Carroll	107	152	Muscogee	124
33	Montgomery	94	73	Meriweathe	101	113	Hall	107	153	Cobb	124
34	Lincoln	94	74	Brooks	101	114	Mitchell	108	154	Clarke	125
35	Walton	95	75	Murray	101	115	Pulaski	108	155	Chatham	127
36	Habersham	95	76	Douglas	102	116	Berrien	109	156	Clayton	128
37	Columbia	95	77	Franklin	102	117	Colquitt	109	157	Bibb	131
38	Charlton	95	78	Randolph	102	118	Elbert	109	158	Dougherty	131
39	Long	96	79	Stewart	102	119	Bulloch	109	159	Fulton	155
40	McIntosh	96	80	Bartow	102	120	Clinch	110			

Expenditure Need Index



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IV. Viability Measure

The relationship between the fiscal capacity index and the expenditure need index is captured by the viability measure. The viability measure combines the two indices into a measure that equals the excess of fiscal capacity over expenditure need expressed as a percent of expenditure need. Table 7 presents the viability measure with the counties listed alphabetically, while Table 8 lists the counties ranked by the value of the index. The geographic distribution of the index is seen in the map.

Positive values mean that fiscal capacity exceeds expenditure need, while a negative sign means that expenditures need exceeds fiscal capacity. A value of zero means that fiscal capacity equals expenditure need. Consider a county with a fiscal capacity index equal to 80 and an expenditure need index equal to 80, which yields a viability measure of zero. With the assumed revenue structure this county would generate revenue equal to 80 percent of the state average. But the expenditure need index of 80 implies that it only needs revenue equal to 80 of the state average in order to provide a level of public service equal to the state average.

For Appling County, a value of 36 percent means that its fiscal capacity exceeds its expenditure need by 36 percent. For Atkinson County, the value of -40 percent means that its expenditure needs exceed its fiscal capacity by 40 percent. Since local governments must balance their budgets each year, a jurisdiction with a positive viability measure can have either lower tax rates or a higher level of service than a county with a viability measure of zero. Likewise, a jurisdiction with a negative viability measure must have either higher tax rates or a lower level of service than a county with a viability measure of zero.

The range of values for the viability index is from -56 percent to 154 percent. The small

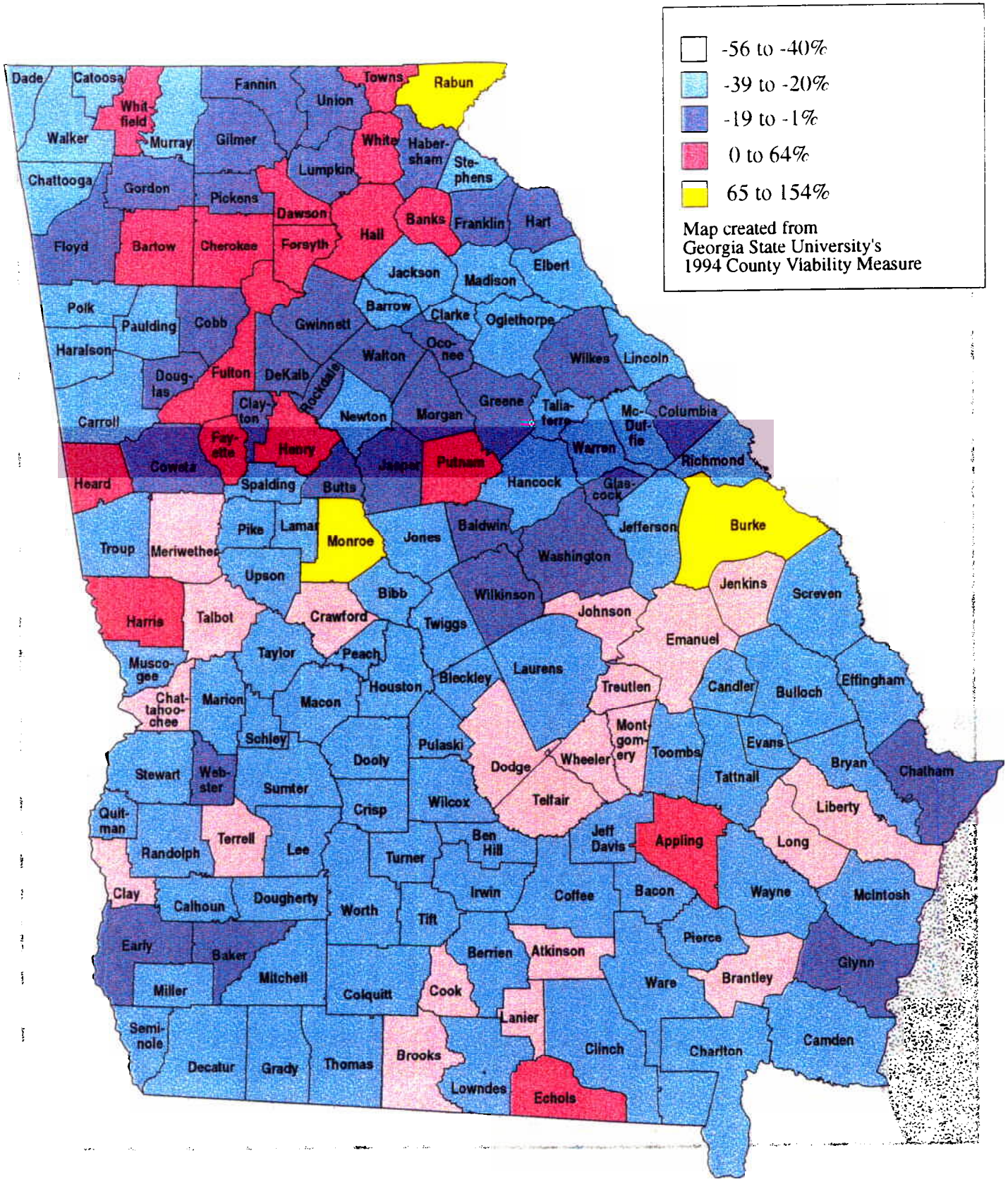
Table 7
Viability Measure
1994

County	Viability Measure	County	Viability Measure	County	Viability Measure	County	Viability Measure
Appling	36%	Dade	-32%	Jefferson	-37%	Richmond	-28%
Atkinson	-40%	Dawson	7%	Jenkins	-43%	Rockdale	-2%
Bacon	-36%	Decatur	-28%	Johnson	-42%	Schley	-34%
Baker	-7%	DeKalb	8%	Jones	-21%	Screven	-34%
Baldwin	-19%	Dodge	-44%	Lamar	-33%	Seminole	-28%
Banks	7%	Dooly	-33%	Lanier	-44%	Spalding	-35%
Barrow	-24%	Dougherty	-36%	Laurens	-25%	Stephens	-22%
Bartow	6%	Douglas	-14%	Lee	-32%	Stewart	-39%
Ben Hill	-39%	Early	-19%	Liberty	-56%	Sumter	-36%
Berrien	-36%	Echols	0%	Lincoln	-33%	Talbot	-45%
Bibb	-26%	Effingham	-35%	Long	-48%	Taliaferro	-25%
Bleckley	-35%	Elbert	-34%	Lowndes	-28%	Tattnall	-34%
Brantley	-44%	Emanuel	-41%	Lumpkin	-6%	Taylor	-37%
Brooks	-43%	Evans	-32%	Macon	-43%	Telfair	-41%
Bryan	-30%	Fannin	-17%	Madison	-31%	Terrell	-41%
Bulloch	-31%	Fayette	23%	Marion	-38%	Thomas	-27%
Burke	154%	Floyd	-8%	McDuffie	-29%	Tift	-30%
Butts	-17%	Forsyth	29%	McIntosh	-27%	Toombs	-33%
Calhoun	-27%	Franklin	-12%	Meriwether	-45%	Towns	17%
Camden	-36%	Fulton	1%	Miller	-21%	Treutlen	-48%
Candler	-30%	Gilmer	-6%	Mitchell	-36%	Troup	-25%
Carroll	-29%	Glascock	-6%	Monroe	90%	Turner	-35%
Catoosa	-25%	Glynn	-4%	Montgomery	-42%	Twiggs	-25%
Charlton	-31%	Gordon	-9%	Morgan	-4%	Union	-4%
Chatham	-17%	Grady	-37%	Murray	-27%	Upson	-31%
Chattahoochee	-56%	Greene	-5%	Muscogee	-33%	Walker	-39%
Chattooga	-29%	Gwinnett	-2%	Newton	-25%	Walton	-14%
Cherokee	7%	Habersham	-4%	Oconee	-2%	Ware	-36%
Clarke	-27%	Hall	0%	Oglethorpe	-27%	Warren	-35%
Clay	-41%	Hancock	-29%	Paulding	-23%	Washington	-16%
Clayton	-18%	Haralson	-33%	Peach	-36%	Wayne	-30%
Clinch	-29%	Harris	2%	Pickens	-1%	Webster	-19%
Cobb	-3%	Hart	-2%	Pierce	-36%	Wheeler	-42%
Coffee	-33%	Heard	9%	Pike	-25%	White	16%
Colquitt	-36%	Henry	2%	Polk	-38%	Whitfield	5%
Columbia	9%	Houston	-33%	Pulaski	-30%	Wilcox	-36%
Cook	-41%	Irwin	-39%	Putnam	29%	Wilkes	-18%
Coweta	-4%	Jackson	-20%	Quitman	-35%	Wilkinson	-15%
Crawford	-40%	Jasper	-13%	Rabun	65%	Worth	-39%
Crisp	-30%	Jeff Davis	-32%	Randolph	-38%		

Table 8
Viability Measure
1994

Ranking	County	Viability Measure	Ranking	County	Viability Measure	Ranking	County	Viability Measure	Ranking	County	Viability Measure
1	Liberty	-56%	41	Peach	-36%	81	Chattooga	-29%	121	Floyd	-8%
2	Chattahoochee	-56%	42	Pierce	-36%	82	Seminole	-28%	122	Baker	-7%
3	Long	-48%	43	Colquitt	-36%	83	Decatur	-28%	123	Glascock	-6%
4	Treutlen	-48%	44	Sumter	-36%	84	Lowndes	-28%	124	Lumpkin	-6%
5	Meriwether	-45%	45	Bleckley	-35%	85	Richmond	-28%	125	Gilmer	-6%
6	Talbot	-45%	46	Turner	-35%	86	Oglethorpe	-27%	126	Greene	-5%
7	Brantley	-44%	47	Effingham	-35%	87	McIntosh	-27%	127	Habersham	-4%
8	Dodge	-44%	48	Spalding	-35%	88	Clarke	-27%	128	Glynn	-4%
9	Lanier	-44%	49	Quitman	-35%	89	Murray	-27%	129	Morgan	-4%
10	Macon	-43%	50	Warren	-35%	90	Thomas	-27%	130	Coweta	-4%
11	Brooks	-43%	51	Schley	-34%	91	Calhoun	-27%	131	Union	-4%
12	Jenkins	-43%	52	Elbert	-34%	92	Bibb	-26%	132	Cobb	-3%
13	Johnson	-42%	53	Screven	-34%	93	Newton	-25%	133	Gwinnett	-2%
14	Wheeler	-42%	54	Tattnall	-34%	94	Pike	-25%	134	Oconee	-2%
15	Montgomery	-42%	55	Muscogee	-33%	95	Laurens	-25%	135	Rockdale	-2%
16	Cook	-41%	56	Toombs	-33%	96	Catoosa	-25%	136	Hart	-2%
17	Clay	-41%	57	Haralson	-33%	97	Troup	-25%	137	Pickens	-1%
18	Telfair	-41%	58	Houston	-33%	98	Twiggs	-25%	138	Echols	0%
19	Emanuel	-41%	59	Lamar	-33%	99	Taliaferro	-25%	139	Hall	0%
20	Terrell	-41%	60	Lincoln	-33%	100	Barrow	-24%	140	Fulton	1%
21	Atkinson	-40%	61	Dooly	-33%	101	Paulding	-23%	141	Harris	2%
22	Crawford	-40%	62	Coffee	-33%	102	Stephens	-22%	142	Henry	2%
23	Worth	-39%	63	Lee	-32%	103	Miller	-21%	143	Whitfield	5%
24	Walker	-39%	64	Jeff Davis	-32%	104	Jones	-21%	144	Bartow	6%
25	Ben Hill	-39%	65	Evans	-32%	105	Jackson	-20%	145	Cherokee	7%
26	Irwin	-39%	66	Dade	-32%	106	Early	-19%	146	Banks	7%
27	Stewart	-39%	67	Bulloch	-31%	107	Baldwin	-19%	147	Dawson	7%
28	Marion	-38%	68	Charlton	-31%	108	Webster	-19%	148	DeKalb	8%
29	Polk	-38%	69	Upson	-31%	109	Wilkes	-18%	149	Columbia	9%
30	Randolph	-38%	70	Madison	-31%	110	Clayton	-18%	150	Heard	9%
31	Jefferson	-37%	71	Bryan	-30%	111	Butts	-17%	151	White	16%
32	Taylor	-37%	72	Crisp	-30%	112	Chatham	-17%	152	Towns	17%
33	Grady	-37%	73	Pulaski	-30%	113	Fannin	-17%	153	Fayette	23%
34	Dougherty	-36%	74	Wayne	-30%	114	Washington	-16%	154	Putnam	29%
35	Mitchell	-36%	75	Tift	-30%	115	Wilkinson	-15%	155	Forsyth	29%
36	Camden	-36%	76	Candler	-30%	116	Douglas	-14%	156	Appling	36%
37	Wilcox	-36%	77	Carroll	-29%	117	Walton	-14%	157	Rabun	65%
38	Bacon	-36%	78	Hancock	-29%	118	Jasper	-13%	158	Monroe	90%
39	Berrien	-36%	79	McDuffie	-29%	119	Franklin	-12%	159	Burke	154%
40	Ware	-36%	80	Clinch	-29%	120	Gordon	-9%			

Viability Measure



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correlation between the fiscal capacity index and the expenditure need index (simple correlation coefficient equal to 0.19) is seen in the values of the viability measure. Only thirty-one counties have a viability measure between -10 percent and +10 percent, and only 46 counties have values between -20 percent and +20 percent. Thus, in more than 70 percent of the counties, fiscal capacity and expenditure need differ by more than 20 percent, and of these counties all but seven have negative values of the measure. Our measures of fiscal capacity and expenditure need imply that there is a substantial imbalance across counties between the ability to raise revenue and the expenditures that are needed to provide services.

The indices were constructed so that for the state average expenditure need equals average fiscal capacity. Thus, the viability measure measures the relative fiscal advantage or disadvantage. However, we can use actual per capita to provide an indication of the value of the viability measure in dollar terms. Non-education local government expenditures per capita in Georgia in 1994-95 were about $1,125.[5] Thus, a county with a viability measure of -20 percent and an expenditure need index of 100 must raise an additional $224 per capita in order to finance the average level of public services. A county with a viability measure of -20 percent and an expenditure need index of 80 must raise an additional $180 per capita in order to finance the average level of public services.

We have attempted to determine what factors might explain differences in the viability measure across counties. The variation in the viability measure is more closely related to the variation in the fiscal capacity index than in the expenditure need index since the variation in the

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[5] In 1990-91, non-education local government expenditures per capita in Georgia were $925. Assuming a 5 percent annual increase, it follows that non-education local government expenditures per capita in Georgia in 1994-95 would be $1,125.

fiscal capacity index is much greater. In addition, the viability index is related to income per capita; the correlation coefficient is 0.33, implying that there are several other explanations for the differences. However, we have been unable to identify other significant factors beyond those used in constructing the fiscal capacity index and the expenditure need index that might explain differences in the value of the viability measure.

V. How the Indices Were Constructed

The purpose of this section is to explain in more detail how the two indices were constructed.

Fiscal Capacity Index

An index of fiscal capacity measures the relative ability of jurisdictions to raise revenue. In order to compare the relative revenue raising ability of jurisdictions, we must estimate the revenue that each jurisdiction (or geographic area) would raise if each used the same revenue sources and imposed the same rates. Thus, the first step in the construction of the index of fiscal capacity is the specification of what revenue sources to be included.

The revenue sources included in the analysis are called the "representative revenue structure." While the specification of the representative revenue structure is arbitrary, we focus on the revenue sources of county and municipal governments since those are the governments we are interested in. In particular, we specify a representative revenue structure that captures most of the revenue sources that county and municipal governments in Georgia can use. We do not consider intergovernmental transfers, i.e., grants, or revenue from the operation of utilities, e.g., water and sewer systems and electrical utilities. The revenue sources in our representative

revenue structure consist of

- property taxes,
- sales taxes,
- business license (now called the occupational tax),
- charges,
- other tax revenue.

Other tax revenue consists of revenue from numerous taxes, including insurance premium taxes, franchise taxes, and taxes on liquor.

The second step is to select the rates for each revenue source. The rates for each revenue source were chosen so that in general the total state wide revenue for each revenue source is approximately equal to the actual state wide revenue collected from that source. Since we are not concerned with school districts or with special districts, e.g., hospital authorities and public transit authorities, we excluded their revenue in determining the rates to be used.

For the property tax we set the millage rate so as to approximate the total state wide revenue for non-school purposes. The implied millage rate is 15.46.

For the sales tax, we assume a 1 percent rate, i.e., a local option sales tax (LOST). Many jurisdictions impose an additional 1 percent sales tax (SPLOST). But since the SPLOST is used for special purposes, i.e., infrastructure, and not general operating purposes, we used only the 1 percent sales tax rate.

For the occupation tax, we first reviewed the structure of the existing occupational taxes as of 1994. Many jurisdictions do not impose such a tax, and among those that do there is substantial variation across the state in what is taxed (employees versus gross receipts) and the

rates imposed. The basis for selecting the rate structure was a recent survey regarding the use of the occupation tax conducted by the Association County Commissioners of Georgia.[6] This survey showed that most counties that have an occupation tax base the tax on employment and have a fixed filing fee per business or a high rate for the first employee. Based on the survey we selected a charge of $50 per establishment and $10 per employee. Employees in agriculture and government were excluded from the calculations.

Charges include revenue from such sources as fees for use of golf and tennis courts, sales of maps and documents, fees for solid waste collection and disposal, rental charges for the use of facilities, etc. We assume that charges are related to personal income. Based on reported state wide revenue from charges and state wide aggregate personal income, we selected a "rate" of 0.672 percent of total personal income.

Given the large number of taxes included under other tax revenue, there was no way to determine a specific base for each of these taxes. Instead, we assume that the revenues from these sources were related to aggregate personal income. Given the relationship between state wide revenue from other taxes and total personal income, a "rate" of 0.35 percent of total personal income was selected.

From a variety of sources we determined the value of the base for each of the revenue sources for each county in Georgia (see Appendix). Note that the base refers to the base for the entire county. Applying the rates we selected to each revenue source yields the estimated revenue that would be generated from each revenue source in the representative revenue structure within each county. These amounts were summed for each county, converted to per capita terms and

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[6]We thank John Keys for making this survey available.

then divided by the state per capita revenue. The state per capita revenue was calculated by dividing total revenue for all counties by state population.

The result of these calculations is an index that allows comparison across counties of their revenue raising ability. Note that the revenue is not related to the revenue that any county actually collects, since that is dependent upon the county's choice of revenue sources and rates.

It should be noted that the index depends upon the revenue sources included in the representative revenue structure and the rates chosen. We did experiment by altering the rates by small amounts and found that the ranking of counties did not change very much. However, making large changes in the rates would likely change the values of the index by large amounts since some counties have relatively high sales tax bases while others have relatively high property tax bases.

There are a couple of things to note regarding the construction of the fiscal capacity index for the cities. First, a change in revenue structure for the cities was made for the sales tax. For the sales tax, we assumed that the county-level revenue would be allocated to the cities in proportion to the city's share of population. Second, we had to rely on other data sources to estimate some of the revenue bases (see Appendix for a discussion). Third, we did not have 1994 population for the cities, so we had to use 1990 population. If cities grew, use of 1990 population will overstate the value of the fiscal capacity index. However, judging by past growth rates, the population of most of the cities would not have changed by more than a couple of percentage points.

The following table illustrates how the fiscal capacity index was calculated using Appling County as an example.

Revenue Source	Base	Rate	Revenue
Property Tax	$595,475,000	15.46 mills	$9,206044
Sales Tax	$194,823,200	1 percent	$1,948,232
Occupation Tax			
Establishment	328 establishments	$50 per establishment	$16,400
Employee	4,696 employees	$10 per employee	$46,960
Charges	$212,976,000	0.672 percent	$1,431,198
Other Revenue	$212,976,000	0.350 percent	$745,417
Total Revenue			$13,394,250
Revenue per Capita			$831.94
Divide by State Average			831.94/613.94 =
Fiscal Capacity Index			135

Expenditure Need Index

Construction of an expenditure need index is more complicated than a fiscal capacity index since there is no easy way to measure need the same way that we can measure a tax base. We begin by selecting a set of public services to consider. We selected the following services: fire, police (including sheriffs), local courts and jail, library, parks and recreation, roads and bridges, and administrative services. These are municipal-type services. The principal services that are not included are human services and courts such as superior court, probate court and juvenile court. A large percent of the expenditures on the excluded services are financed by grants from state and federal sources and thus were excluded from consideration.

We assume that public expenditures per capita within a jurisdiction are a function of available resources, tastes or preferences, cost of inputs, and the service environment. It is

generally recognized that the level of public expenditures is a positive function of income, which is one measure of available resources. Public expenditures also vary with the preferences of the residents. Numerous studies have found, for example, that public expenditures vary with the education level of the residents. The level of expenditure also varies with the wages that have to be paid and the cost of materials that have to be purchased. Finally, expenditures vary with the environment in which the services are to be provided. For example, expenditures on road maintenance will depend upon the number of miles of road within the jurisdiction; expenditures on police will depend upon the crime rate; and expenditures on fire protection will depend upon the types, density, and age of buildings that have to be protected.

For each of the public services we first aggregated local government spending for each service within each county. In other words, we added together the spending by the county government and all municipal governments within the county. (Where the municipal governments are located in more than one county, we put the entire municipality into the county where the majority of the municipal population resided.) We then ran a regression for each service in which the dependent variable was expenditures per capita on that service and the independent variables included variables that measured available resources, preferences, costs, and service environment, where the specific service environment variables differed by type of service.

For administrative overhead, instead of running a regression, we assumed that expenditures on administration equals a constant percent of the other expenditures.

For each service we calculated the actual state wide expenditure per capita. We then used the estimated regression equation to estimate for each service how much the expenditure per capita within each county would differ from the state wide average as a result of differences in

cost and the service environment. We then summed the resulting expenditures across all services for each county and divided by population. The resulting sum for each county was divided by the state wide expenditure per capita on these services to arrive at the index of expenditure need. The Appendix presents the variables that were used in the regression equations and the source of the data that were used.

The following table shows how the predicted expenditure need for police services was calculated using Appling County as an example.

Variable	Regression Coefficient	County Value	State Average	Effect on Expenditure = coefficient*(county value - state average)
Wage	0.048	351	389	-1.867
Commerical Property	0.799	3.522	13.51	-7.989
Industrial Property	0.241	2.129	9.51	-1.785
Density	-0.012	83.697	70.44	-0.161
Crime Rate	116	0.020	0.033	-1.462
% Group Housing	-157	0.011	.026	2.379
% Multi-unit housing	-22.6	0.692	0.703	0.245
Total Effect				-$10.641
State Average				$78.96
Predicted Expenditure Need				$68.32

Appendix

This appendix describes the sources of data used in constructing the two indices.

Fiscal Capacity Index

Actual revenue from each source was obtained from Government Finances: 1990-91, Bureau of the Census. Personal income for 1994 was obtained from the Regional Economic Information System of the Bureau of Economic Analysis.

Sales tax base was constructed from actual LOST or SPLOST receipts (for calender year 1994) by jurisdiction obtained from the Georgia Department of Revenue[7]. For DeKalb County we used the estimate generated in Research Atlanta's report on DeKalb County's recent sales tax proposal.

For the property tax, net assessed value of regular property and net utility property for 1994 for counties was taken from the Georgia Department of Revenue's 1995 Statistical Report (Table 13). The exemptions are the value of the state authorized exemptions, not what local actual governments provide.

The number of establishments and number of employees for the occupational tax came from County Business Patterns, 1993.

The following modifications were made in constructing the city fiscal capacity index. First, there is no data source that provides the number of establishment and employment within cities for all industries. The 1992 Censuses of Business do provide city-level data on employment and establishments but only for retail, wholesale, service; for some city 1987 data on manufacturing is available. To determine the base for the occupational tax, we used the Censuses

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[7] We thank D. Langley for providing us with this data.

of Business data to determine the percent of the county-level occupational tax revenue that is generated within the city. Second, we only had 1990 Census of Population data on income for the cities. We used the Census of Population data to determine the ratio of city income to county income and applied that ratio to the income-based revenue sources.

Expenditure Need Index

The following table lists the independent variables used in each of the regressions. The values of the dependent variables were taken from the Department of Community Affairs' expenditures data for local governments in Georgia.[8] The second table lists the sources for each independent variable.

[8] We thank Rick Tangum for making this data available.

	Regression Equations					
Independent Variables	**Police**	**Fire**	**Jail/Courts**	**Parks/Rec**	**Roads**	**Library**
Miles of roads per capita*					X	
Percent roads unpaved*					X	
Total index crimes*	X		X			
Total arrests - index crimes*			X			
Population*				X		
Population density*	X	X		X	X	X
% over 65 years	X	X	X	X	X	X
% black	X	X	X	X	X	X
% urban	X	X	X	X	X	X
% in group housing	X					
Median household income	X	X	X	X	X	X
% who work in county		X				
% with college degree	X	X	X	X	X	X
% poor	X	X	X	X	X	X
% owner occupied housing		X				
% housing over 20 yrs of age		X				
% multi unit housing	X	X				
Median house value	X	X	X	X	X	X
% commercial value	X	X	X	X	X	X
% industrial value	X	X	X	X	X	X
Manufacturing wage rate**	X	X	X	X	X	X

* represent service environment variables

** represents the cost variable

Independent Variables	Source
Miles of roads	GA County Guide
Total index crimes	GA County Guide
Total arrests for index crimes	GA County Guide
Population	Census of Population
Population density	Census of Population
% over 65 years	Census of Population
% black	Census of Population
% urban	Census of Population
% farm	Census of Population
% in group housing	Census of Population
Median household income	Census of Population
% who work in county	Census of Population
% with college degree	Census of Population
% poor	Census of Population
% owner occupied housing	Census of Population
% housing over 20 yrs of age	Census of Population.
% multi unit housing	Census of Population
Median house value	Census of Population
% commercial value[9]	Property tax digest file
% industrial value	Property tax digest file
Manufacturing wage rate	Department of Labor

[9]We thank Larry Griggers for making the property tax digest data available.